

WHAT IS CLAIMED IS:

1. A lithographic projection apparatus, comprising:  
a radiation system configured to provide a beam of radiation, the radiation system including an illumination system;  
a support configured to support a patterning device, the patterning device configured to pattern the beam of radiation according to a desired pattern;  
a substrate table configured to hold a substrate;  
a projection system configured to project the patterned beam of radiation onto a target portion of the substrate; and  
a device positioned in a first plane intermediate a second plane conjugate to a plane of the substrate and a third plane conjugate to a pupil plane of the projection system, the device comprising a plurality blades, each blade being selectively insertable into the beam of radiation.
2. An apparatus according to claim 1, wherein the plurality of blades includes at least one solid blade and at least one partially opaque blade.
3. An apparatus according to claim 2, wherein each partially opaque blade comprises a grid of rods, bars, or wires.
4. An apparatus according to claim 2, wherein the partially opaque blades have different blocking ratios.
5. An apparatus according to claim 1, wherein each blade has a predetermined transmissibility pattern.
6. An apparatus according to claim 5, wherein the blades are insertable into the beam of radiation in a first direction in which the support and the substrate are movable with respect to each other and the transmissibility of the blades varies in a second direction perpendicular to the first direction.
7. An apparatus according to claim 1, wherein the radiation system includes a field faceted mirror and a pupil faceted mirror in order along a direction of propagation of the beam of radiation and the device is positioned between the pupil faceted mirror and the patterning device.
8. An apparatus according to claim 7, further comprising a plurality of reflective blades selectively insertable into the beam of radiation in front of at least one facet of at

least one of the field faceted mirror and the pupil faceted mirror to reflect a portion of the beam of radiation to a beam dump.

9. An apparatus according to claim 8, wherein the reflective blades include a coating configured to scatter the portion of the beam of radiation or change a phase of the portion of the beam of radiation.

10. A lithographic projection apparatus, comprising:

- a radiation system configured to provide a beam of radiation, the radiation system including an illumination system, the illumination system including a field faceted mirror and a pupil faceted mirror;

- a support configured to support a patterning device, the patterning device configured to pattern the beam of radiation according to a desired pattern;

- a substrate table configured to hold a substrate;

a projection system configured to project the patterned beam of radiation onto a target portion of the substrate; and

- a plurality of reflective blades selectively insertable into the beam of radiation in front of at least one facet of at least one of the field faceted mirror and the pupil faceted mirror to reflect a portion of the beam of radiation to a beam dump.

11. An apparatus according to claim 10, wherein the reflective blades include a coating configured to scatter the portion of the beam of radiation or change a phase of the portion of the beam of radiation.

12. A device manufacturing method, comprising:

- providing substrate at least partially covered by a layer of radiation-sensitive material;

- providing a beam of radiation using a radiation system, the radiation system including an illumination system;

- using a patterning device to endow the beam of radiation with a pattern in its cross-section;

- projecting the patterned beam of radiation onto a target portion of the layer of radiation-sensitive material using a projection system; and

- selectively inserting at least one blade of a plurality of blades into the beam of radiation in a first plane intermediate a second plane conjugate to a plane of the substrate and a third plane conjugate to a pupil plane of the projection system.

13. A method according to claim 12, wherein the plurality of blades includes at least one solid blade and at least one partially opaque blade.
14. A method according to claim 13, wherein each partially opaque blade comprises a grid of rods, bars, or wires.
15. A method according to claim 13, wherein the partially opaque blades have different blocking ratios.
16. A method according to claim 12, wherein each blade has a predetermined transmissibility pattern.
17. A method according to claim 16, wherein the blades are insertable into the beam of radiation in a first direction in which a support for the patterning device and the substrate are movable with respect to each other and the transmissibility of the blades varies in a second direction perpendicular to the first direction.
18. A method according to claim 12, wherein the radiation system includes a field faceted mirror and a pupil faceted mirror in order along a direction of propagation of the beam of radiation and the blades are positioned between the pupil faceted and the patterning device.
19. A method according to claim 18, further comprising selectively inserting a plurality of reflective blades into the beam of radiation in front of at least one facet of at least one of the field faceted mirror and the pupil faceted mirror to reflect a portion of the beam of radiation to a beam dump.
20. A method according to claim 19, wherein the reflective blades include a coating configured to scatter the portion of the beam of radiation or change a phase of the portion of the beam of radiation.
21. A device manufacturing method, comprising:
  - providing substrate at least partially covered by a layer of radiation-sensitive material;
  - providing a beam of radiation using a radiation system, the radiation system including an illumination system, the illumination system including a field faceted mirror and a pupil faceted mirror;
  - using a patterning device to endow the beam of radiation with a pattern in its cross-section;

projecting the patterned beam of radiation onto a target portion of the layer of radiation-sensitive material using a projection system; and

selectively inserting at least one reflective blade into the beam of radiation in front of at least one facet of at least one of the field faceted mirror and the pupil faceted mirror to reflect a portion of the beam of radiation to a beam dump.

22. A method according to claim 21, wherein the reflective blades include a coating configured to scatter the portion of the beam of radiation or change a phase of the portion of the beam of radiation.